

ACOUSTIC ECHO CANCELLATION AND SUPPRESSION

Abstract

A gain control method for reducing or eliminating the undesirable effects of acoustic echo coupling between a speaker and a microphone while providing a full-duplex connection. Weighted normalized far-end and near-end powers are used to first calculate a suppression value which is used to determine the attenuation factor between an upper and a lower limit, thus improving reliability in noisy environments. To further improve the quality of the full-duplex connection, a smoothing factor is applied to the attenuation calculation to provide a low power and constant sounding echo without annoying transient-like sounds.